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EPA HEADQUARTERS

RESOURCES

Budget FTEs = 59 \$3.835 million CastNet less than \$4 million

Information Resources CAA-Title I CAA-Title IV CAA-Title V

Research Results
NAAQS -related
research (sub.
1-1-8) Ecosystem
effects
(Goal 8)
Non-EPA research

Stakeholder Input EPA Regions State/Local/Tribal Agencie s STAPPA/ALAPCO Utility Industry Brokerage Firms

Partnerships

PROGRAMS/ACTIVITIES

Infrastructure
105 Grants
Management Systems and Databases

Regulatory Control
Acid Rain Program
Reductions in Sulfur Dioxide and Nitrogen
Oxide

Trading of SO2 allowances

Incentive Based Programs
Opt-in Program
Early Election Program

Measurement and Assessment Activities
Emissions Inventories
Continuous Emissions Monitors (CEMS)
Emissions Tracking Systems (ETS)
Allowance Tracking System (ATS)
Alternative Emissions Limitation (AEL)
National Atmospheric Deposition Program (NADP).
Clean Air Status and Trends Network (CASTNet)

National Acid Precipitation Assessment

Education and Outreach Activities

Program

(NAPAP)

OUTPUTS

Infrastructure

Memorandum of
Agreement (MOAs)
Work Plans
Strategies/Priorities
Rulemaking
Develop and Implement
Regulations

Regulatory Control

Policies and Guidance

Reports and Studies

Emissions Data System

Allowance System

Operation

Voluntary Control

Guidance

Measurement

Emission Progress

Assessment Reports

Emissions Inventory

Allowance Tracking

Outreach /Education

Training Courses

Brochures

Website

CUSTOMERS

Control

Infrastructure
Region
States
Industry
Environmental Groups

EPA Regions
States/Local/
Tribal
Governments
Industry
Trade Associations
Government
Associations
Congress
Public

Outreach/Education
Public
Industry
States/Local/
Tribal
Governments

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

Customers become aware of and understand EPA regulations and HQ's policies for Acid Rain (SO2 and NOx).

Customers gain knowledge about extent of Acid Rain, the causes, effects and sources of Acid Rain and learn the effectiveness of the control strategies put in place.

Customers learn how to use tools (e.g., models) in analyzing and developing their control strategies and programs.

Customers decide to comply with mandated controls as well as make voluntary efforts to reduce emissions.

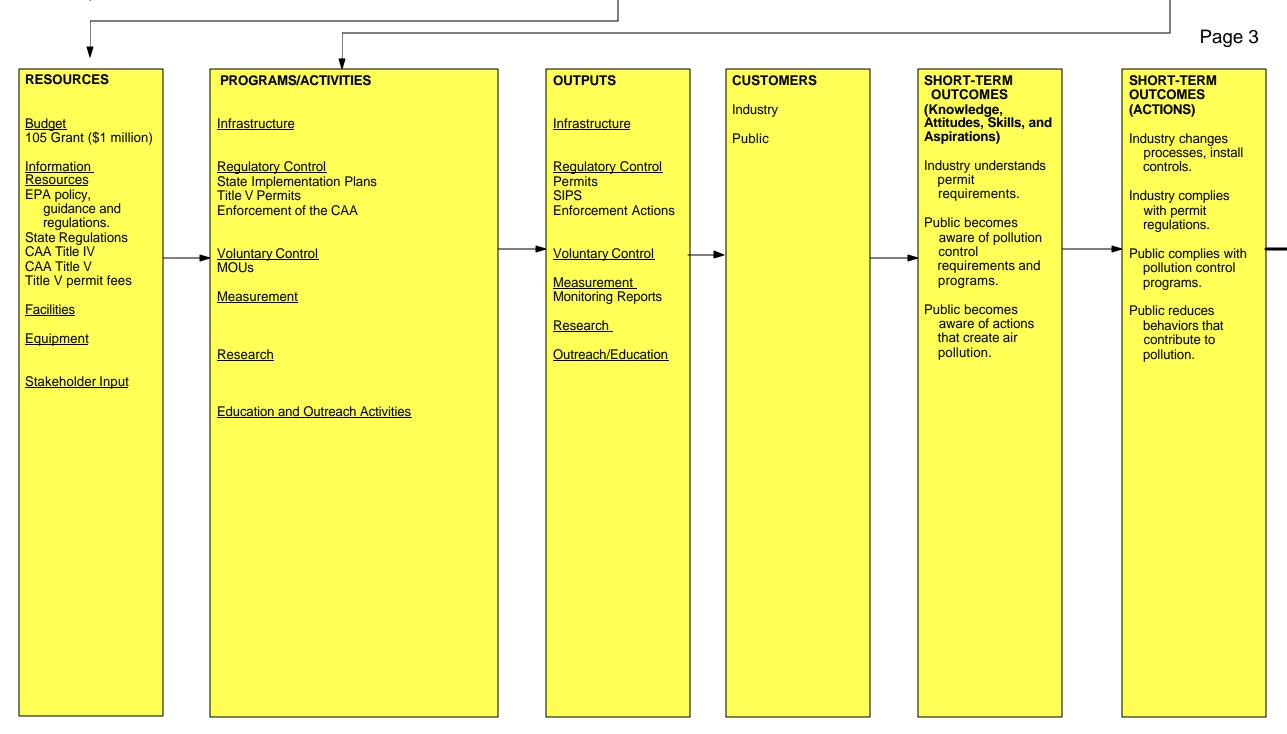
Industry directly participates in trading program through Clean Air Markets Division and Brokerage.

SHORT-TERM OUTCOMES (ACTIONS)

EPA Regions implement HQ's policies.

In coordination with EPA Regions: "Clean Air Markets" States implement programs in accordance with regulations and EPA policy.

In coordination with Regions and States: Industry complies with regulations.



Note: As a result of programs constantly changing, this model remains a draft.

OTHER EPA AND NON-EPA PROGRAMS THAT CONTRIBUTE TO REDUCED ACID RAIN

EPA GOAL 1 PROGRAMS

Subobjective 1.1.1 - Attain Ozone NAAQS

Subobjective 1.1.5 - Attain Sulfur Dioxide NAAQS

Subobjective 1.1.6 - Attain Nitrogen Dioxide NAAQS

EPA NON-GOAL 1 PROGRAMS

Goal 4 - Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces, and Ecosystems
Goal 6 - Reduction of Global and Cross-Border Environmental Risks (e.g., Green Lights, Energy STAR)
Goal 8 - Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental

Goal 9 - A Credible Deterrent to Pollution and Greater Compliance with the Law

INTERMEDIATE OUTCOMES (Stressors)

Reduced SO2 emissions from utilities and industries.

Reduced NOx emissions from utilities and mobile sources.

Strategic Goal for Acid Rain:

By 2005, annual emissions of nitrogen oxides from electric power generation sources will be reduced by 2 million tons from projected levels, of which 1 million tons will occur during the summer to facilitate attainment of the ozone standard. By 2010, annual sulfur dioxide emissions from electric power generation sources will be reduced by 8.5 million tons below 1980 levels.

FY 2001 APG:

5 million tons of SO2 emissions from utility sources will be reduced from the 1980 baseline.

2 million tons of NOx from coal-fired utility sources will be reduced from levels before implementation of Title IV of the Clean Air Act Amendments.

FY 2001 APM's:

SO₂ Reductions

Baseline for SO2: The base of comparison for assessing progress on the 2001 Annual Performance Goal is the 1980 emissions baseline. The 1980 SO2 emissions inventory totals 17.5 million tons for electric utility sources. This inventory was developed by National Acid Precipitation Assessment Program (NAPA) and used as the basis for reductions in Title IV of the Clean Air Act Amendments. This data is also contained in EPA's National Air Pollutant Emissions Trends Report.

NOx Reductions

Baseline for NOx: The base of comparison for assessing progress on the 2001 Annual Performance Goal is emissions levels of coal- fired utility sources before implementation of Title IV of the CAA. Emissions levels that would have resulted without implementation of Title IV of the CAA were based on projection of NOx emissions assuming growth without additional controls.

Emissions Inventory

Emissions Tracking Annual Reconciliation completed by the Clean Air Market Division.

INTERMEDIATE OUTCOMES (AMBIENT CONDITIONS)

Improved Ambient Conditions - NOx and SO2.

(See APGs and APMs listed under the Intermediate Outcomes Stressors box.)

INTERMEDIATE **OUTCOMES** (Exposure)

Reduced risk to human health and the environment by protecting and improving air quality.

LONG-TERM IMPACT

Clean Air GPRA Strategic Goal for Clean Air: The air in every American community will be safe and healthy to breathe. In particular, children, the elderly. and people with respiratory ailments will be protected from health risks of breathing polluted air.

Reducing air pollution will also protect the environment, resulting in many benefits, such as restoring life in damaged ecosystems and reducing health risks to those whose subsistence depends directly on those ecosystems.

Congressional and appropriations

Lawsuits and court decisions



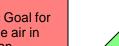
Public preferences/trends

Politics

Lobbying from industry and environmental groups

Energy supply conditions

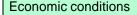
State/Local Air Monitoring Network National Air Monitoring Network National Atmospheric **Deposition Program** Clean Air Status and Trends Network



EXTERNALITIES:

(Factors beyond the control of the program that hinder or contribute to achievement of the program's goals.)

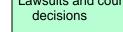
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State budgetary

Weather





FOOTNOTES:

- [1] = This model represents the intended design of the program based on EPA planning and budget documents, numerous EPA web-based information, applicable statutes and regulations, interviews with EPA officials, and comments from EPA officials on the preliminary versions of the model. We did not discuss the model or its contents with EPA external stakeholders such as Congressional members, industry groups, environmental groups, or state agencies. Further, we did not perform work to test whether the program is being implemented as depicted in this model.
- [2] = Activities are divided into categories which capture related activities. The categories list general programs or strategies in place, not the specific activities being conducted. Activities or programs that do not receive funding from this GPRA subobjective are not listed. Cross-cutting infrastructure activities that support all Goal 1subobjectives (e.g., resource management, information management, Title V premitting and Tribal programs) are not listed here.
- [3] = Includes economic incentive as well as voluntary programs.
- [4] = OGC provides advice/legal support in developing rules, handling lawsuits, Congressional Inquiries, document requests, FOIA requests, and Discovery Requests from DOJ.
- [5] = OGC provides advice/legal support for: adverse comments on a SIP, non-attainment programs, high profile facilities, source redesignations, Title V issues, and increased sanctions.
- [6] = OECA activities include: developing enforcement-related rulemakings, policy, and guidance; ensuring enforceability of rules; setting national enforcement priorities; investigating and deterring violations; participating in civil and administrative case negotiations, litigation and settlements; managing national enforcement programs; collecting and integrating compliance and enforcement data; developing enforcement initiatives; and coordinating enforcement activities with States, Locals, Tribes, EPA Regions, OGC, DOJ and other Federal Agencies. Most state and local agencies are authorized to operate federal air regulatory programs which includes conducting compliance monitoring activities such as on-site inspections and initiating appropriate enforcement actions in response to identified violations.